School preparing us for future disasters

Humanitarian Aid

Fifth DIPECHO Plan of action for South America
First edition: 2009
Elaborated within the framework of the Dipecho Project titled *Preparations and responses to emergencies from school in Cochabamba, Bolivia*.

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CHAPTER 1
Introduction

Presentation

The present document describes the capitalization process of the Project *Developing capacities, in schools and local leaders, to response to disasters, department of Cochabamba, Bolivia*, also denominated as *School preparing us for future disasters*.

This initiative, with a financial support of the European Commission, Department of Humanitarian Aid (ECHO) and canalized through its DIPECHO and Practical Action program, was executed by the Agrobiodynamic Assistance to Farmers (PAAC).

The objective of the capitalization is to recover experiences and knowledge, facilitate the data access, share information with groups of interest and contribute to overcome difficulties based on concrete experiences.

The capitalization is focused on the communication, education and diffusion sectors with emphasis on the education sub-sector, being its axes: the school as scenario of capacity building, the school plans of preparation and responses to emergency, the school brigades, the production of educative materials, the exchange of experiences and the school as a coordinating axis with the community.
The sources of primary information were the interviews and narrations from the project actors: professors, students, community leaders, municipality and educative authorities. Each one of these interventions was systematized in a group of actors. Visits to the area of study (Sipe Sipe and Vinto Municipalities) were programmed, and interviews to the project technical team, as well.

By the other hand, the documentation produced in the project like reports, bulletins, guidelines, texts, among others, were reviewed.

The capitalization product will be socialized among the local actors, professors, students, local leaders, official employees, social organizations, local and national public and private organizations linked with the preparation to face emergencies and disasters reduction, education, as well as other project technical teams and agencies of cooperation interested in the subject.

This document will also be published in the following websites:

www.desaprender.org/desap_blog
www.redesdegestionderiesgo.com
www.videcicodi.gob.bo
www.solucionespracticas.org.pe
www.paac.org.bo
www.eird.org.
CHAPTER 2
Description of the project

2.1 Name of the experience

*Preparative and Responses to disasters starting from schools of Cochabamba, Bolivia. School preparing us for future disasters.*

2.2 Intervention thematic area

The project took part in the following sectors and sub-sectors:

1. Elements of local management of emergencies: creation and training of local capacities
2. Institutional and lobbying links: incidence and coordination facilities
3. Information, education and communication: public awareness, educative and diffusion

2.3 Location of the experience

The Project intervention area is located in the Sipe Sipe and Vinto Municipalities, province of Quillacollo, department of Cochabamba.
The Municipality of Vinto, the fourth section of the Quillacollo province, is located at 17 km of the city of Cochabamba and at 4 km of Quillacollo. The municipal jurisdiction has four districts: Vinto or Central, Machajmarca, Anocaraire and Chujlla. Its extension area goes from the Low Valley at 2,537 mosl to the Tunari mountain range at 5,035 mosl. There are three important rivers: Grande, Chocopina and the Cholla. According to the Statistic National Institute (INE), in the year 2001, the Municipality of Vinto had a population of 31,489 habitants in an area of 236 km² in which 43 communities are located. According to the same data, the district of Vinto has 10,400 habitants. The base of the social organization is the syndicate of farmers and the neighbourhood committees.

On the other hand, the Municipality of Sipe Sipe is the second municipality of Quillacollo province which is located in the lower part of the Cochabamba valley, at 25 km of the city of Cochabamba.
It is formed by three districts: Sipe Sipe, Mallco Rancho and Itapaya. According to the 2001 data of INE, the municipal territory has an area of 455 km², where the rural population represents the 65% and the urban population the 35%. The district has a population of 16,170 habitants which represents the 51,6% from the total of the municipality population. The structure of the social organization corresponds to farming syndicates, farming communities and neighbourhood committees.

2.4 Period of intervention

The project was implemented for a period of 14 months, from 1 October 2007 to 30 November 2008.

2.5 Actors involved

2.5.1 Beneficiaries

The universe of beneficiaries projected in Sipe Sipe and Vinto municipal jurisdiction was of 7,776 persons, representing the 12.37% of the total population from both municipalities. Nevertheless, it was achieved that 8,403 persons among teachers, students, municipal authorities, community leaders and populations can be benefited.
Altogether, 18 educative units were worked: In Vinto: Melchor Cuadros, Matilde Lanza, Soledad Rivas, Martín Cárdenas, Martín Cárdenas Hermosa, David Arzabe, Nacional Nocturno Vinto and Reino Unido. In Sipe Sipe: 23 de Marzo, Mariscal Sucre, Andrés Uzeda, Rodolfo Mercado, Montenegro zona 1, Sorata, Mallco Rancho, Caviloma, Toribio Claure and Viloma Cala Cala.

### 2.5.2 Counterparts

#### Civil Defense

In order to inform and define activities, the project progress and to articulate joint actions, periodical meetings were conducted with its representatives in the cities of La Paz and Cochabamba.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Sub-Sector</th>
<th>Number of beneficiaries – Project beginning</th>
<th>Number of beneficiaries – End of the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Disaster management components</td>
<td>Establishment and training of local capacity:</td>
<td>5,448</td>
<td>1,360</td>
</tr>
<tr>
<td></td>
<td>Community members</td>
<td>5,364</td>
<td>1,205</td>
</tr>
<tr>
<td></td>
<td>Community leaders</td>
<td>40</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Authorities and public officials</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>NGOs</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Institutional Linkages Advocacy</td>
<td>Incidence</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Departmental and municipal authorities</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Facilitating coordination</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Representatives of NGOs</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Public institutions</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Information, Education, Comunication</td>
<td>Public awareness</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Municipal and departmental authorities</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>2,200</td>
<td>6,933</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>100</td>
<td>486</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>2,100</td>
<td>6,329</td>
</tr>
<tr>
<td></td>
<td>Dissemination</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Social communicators</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Public institutions</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>7,776</td>
<td>8,403</td>
</tr>
</tbody>
</table>
Cochabamba COE
A closely coordination was maintained with this institution, in relation to the implementation of the project activities and the strengthening of the municipalities.

Vinto and Sipe Sipe Local Educative
Thanks to the active participation of the school principals, teachers and students of the educative units, the objectives presented were achieved, within the framework of the cooperative agreements established with these institutions.

Municipality of Vinto and Sipe Sipe
A permanent coordination level with the city council and the security committees was established, and another joint implementation level with the municipalities. Thanks to that, the project obtained the permanent support of technicians and officers, as well as the possibility to organize events in a joint manner.

2.6 Context
According to the INE 2001 data, the department of Cochabamba has a poverty index of 55%, distributed as follows: 465,934 habitants living in moderate poverty (60 %), 264 583 in indigence (34 %) and 47,301 under marginal condition (6%).
The poverty reasons, among others, were caused by adverse factors, originating emergencies and/or disasters like droughts, frozen, hailstorms, snowfalls, floods, sliding, forest fires, hurricane winds, earth tremors, etc. which cause devastating effects to the infrastructure, services and ways of living of the communities.

2.6.1 Risk situation in the intervention zone

From 45 municipalities of the department of Cochabamba, 18 were considered of high vulnerability, 14 of average vulnerability and 12 of low vulnerability. In the case of Vinto, the communities located in the sections of the Municipality of Vinto (Pueblo de Vinto, Sexta Parte, Vilomilla and Chinchilla), were prioritized for the effects of the DIPECHO Project. In the Sipe Sipe area, the communities of Montenegro (intermediate zones), Montenegro (Section 1), Caviloma, Villa Pankuruma, Ch´awarani, Vila Vila and Sorata were also prioritized.

All the prioritized communities are highly vulnerable to overflowing of rivers, causing floods that affect mainly to families established in its borders.

2.7 Problem raised

The last overflowing, that happened in the department of Cochabamba, resulted in 178 families affected, 140 flooded housing and 700 hectares of cultivated lands affected in these communities.
The vulnerability of Sipe Sipe and Vinto facing to disasters is reflected in the overflowing of the Pankuruna, Viloma Kora and Rocha rivers, affecting to communities, educative units and population located in its borders. Since Sipe Sipe is located in a seismic zone, its vulnerability increase because of the very little preparation of the population and the infrastructure of their buildings.

There is an ignorance from the communities about the problematic of risks and disasters, as well as very little participation in the design of plans and strategies of disaster preventions.

The PDM and the municipals Operative Annual Plan (PAO) do not consider actions of prevention and responses to emergencies or disasters. The Functional Units and the municipals COE, do not work because they do not have resources and personnel trained in risks management.

Also, there is not an organization among the local governments and the population of the prioritized communities that can reduce disaster risks. It is also clearly shown an institutional weakness, lack of human resources trained, equipment, information on methodologies and instruments adapted to the local reality on how to implement actions of prevention and responses to emergencies when disasters may occur.
The local educative system does not consider the problematic of risks management. There is an inadequate teaching formation in the subject, lack of relationship between the schools and the local institutions and a limited participation of students and family parents in the school administration.

It is very little the experience in the implementation of risks reduction proposals that involve the school, community, organizations and institutions.

Regarding the communities, there is a high dependence on the municipal authorities and on the central government. That is reaffirm by the welfare politics implemented by the government during emergency situations.

2.8 Intervention proposal

From this perspective, the project has considered as objective: «Develop capacities of responses to face disasters in schools, teachers, students and local leaders, in the municipalities of Vinto and Sipe Sipe., department of Cochabamba». The actors involved are the students, teachers, school principals of educative and district units. Local leaders of the Territorial Base Organization (OTB) and syndicates as well as authorities and municipal technicians are also involved.

In order to respond to these objectives, three concrete results were presented:

1. Teachers and students awarded, promote a culture of disasters prevention in schools and communities as part of the campaign *The prevention starts in the schools*, promoted by the ONU
2. Municipal employees and communal leaders of two organized municipalities, elaborate and implement plans of preparative and responses to emergencies and disasters caused by floods and earthquakes
3. To share and diffuse knowledge through the media and organizations and institutions networks

**2.9. Difficulties in the intervention**

Among the difficulties presented in the Project implementation, it is important to emphasize:

- Strike of teachers, that originated an ahead and extension of mid-year school vacations
- Block of highways which did not allow the normal access to the project zone of execution
- The political and social situation of Bolivia generated clash of interests between the central government and some departments
- Duplicity of positions in the educative sector. There were two departmental school principals in a same period, one appointed by the central government and the other by the Prefecture of Cochabamba
According to the objectives and the project scopes, five axes were defined in order to work the capitalization:

- Axis 1: The school as scenario of capacities building
- Axis 2: School plans of emergency
- Axis 3: School Brigades
- Axis 4: Building of educative materials
- Axis 5: Exchange of experiences
- Axis 6: The school as the coordinating axis with the community
3.1 The school as scenario of capacities building

3.1.1 Methodological process

In order to develop this axis, it was used the methodology “in cascade” consisting in the selection of a first group of teachers to be trained, who later train to the other project actors through the methodology replicas. This allowed the empowerment of the first trained group and more involvement of teachers, students, family parents and leaders in the project implementation.

As from this experience, we can indicate that the school is a potential scenario of capacity building.

The developed actions for capacities building in teachers and students executed in the following manner:

Training Workshops
Since the beginning of the project, these activities were developed to help the generation of capacities in actors of Educative Units in the preparation and responses to emergencies during disasters. At the same time, it was possible also the conformation of school brigades. The building of didactic units, for each one of the subjects, was also worked during the workshops.
DIDACTIC UNITS
RISK REDUCTION APPROACHED FOR LOCAL LEADERS AND MUNICIPAL AUTHORITIES.

GENERAL OBJECTIVE:
The recognition of human resources, natural materials of the territory and who control them in order to arrange, between all the territory actors, the intervention in preparing processes to face disasters, under a risk management logic.

SPECIFIC OBJECTIVES:

- To share knowledge and to teach how to identify the risk and its components in our territory
- To elaborate, in a sharing manner, an activity plan for risk reduction in the municipal territory.
- To coordinate activities between the technical staff of the project and the municipal organizations and COE members
- To program joint activities for the execution of the municipal plan

MODULE ACTIVITIES:
Presentation of the conceptual framework.
Presentation of the normative framework.
Presentation about the risk reduction management with focus on childhood rights.
Working group to define the concepts of threaten, vulnerability and risk and to build risk scenario.
To coordinate future activities: the creation of a participative agenda of activities destined to prepare the population when facing with disasters.
Plenary and commitment signature.
Workshop evaluation.
The achievement of this purpose, goes through the following critical points that we express as a working orientation:

- The integration of several municipal organizations around the Project School preparing us for future disasters
- The possibility to design and execute a strategy as from the stimulation of its potentialities and diminishing its restrictions, taking advantage of the context conditions where it they are developed
- The identification of the vulnerability, risk, disasters and threatening conditions that affect or could affect the daily life
Replicas
These are the processes of “Training in cascade” developed by the first group of actors that includes teachers and school principals who, at their first instance, received training in order to replicate it to colleagues and students of educative units. These replicas are considered to be very important because they generate capacities between trained people as well as a conceptual appropriation and commitment with the thematic and the Project itself.

Campaigns of sensitization
The sensitization was transverse and was defined as potential for the capacity building of actors, because through this mechanism, changing in the person attitudes was achieved as it was indicated by school principals, teachers and students. The sensitization door to door, caused the interest of the beneficiaries, making incidence and involving family parents of the school committees. Despite the impact generated by this activity, the exact number of persons sensitized was not quantified. Nevertheless, it is relevant the information of 900 families from Vinto and Sipe Sipe municipalities who were visited in their homes.

3.1.2 Discoveries and results

• Through the training, teachers and students expressed, with clarity, their experiences, making comparisons, analysis and conclusions
• In the annual planning, teachers incorporated competitions and indicators related to the subject of preparation and attending emergencies
• A culture of prevention was created within the actors involved, particularly in youth and children, generating a changing of attitude and a major preoccupation for the subject
• Actions of prevention and preparation in daily local actor activities and educative communities
• Teachers and students performed the transference of knowledge through “door to door” campaigns of sensitization
• Educative actors involved clearly identify which are the risks, disasters, vulnerabilities and threatening, at school and community level
• Initiative and conscience of school teachers to include the subject of risks of prevention and preparative to face disasters in the schools program

3.1.3 Lessons learned

• Actors should be prepared and alert when faced with any disaster event
• The population knows very little about disaster subjects, nevertheless, they express their preoccupation for the events that happened and, based on the lively history, they present proposals of risk reduction
• It is important that COE ceases of being a nominal authority so that it can assume its responsibilities according to the legal framework that laws 2141 and 1335 offers for disasters prevention
• A major number of students and teachers should be trained in order to form networks, that is, to involve the participation of all the educative units
• The communication is fundamental to transfer knowledge and to sensitize the community. It is necessary to involve the mass media in order to achieve an effective participation of the educative population.
• The realization of practices generates major sensitization and therefore sustainability of response actions. That is why they should be carried out in a permanent way.

3.1.4 Conclusions and recommendations

• The school axis, as scenario of capacities building, is closely related with the motivation that can be generated in actors of the educative community through activities or by the interest in the thematic. The capacity building was given, basically, through assistantship activities, school plans of emergency (SPE) and school brigades.
• The school is a potential scenario of capacities building because of the existence of an active and latent mass which is in continuous learning process (students) and others in a constant practice of planning and teaching (teachers).
• The work of capacity generation in school actors should be reinforced with the presence of other actors like the municipality, the firemen, the policemen, the SAR group, among others, that can allow the development of actions in a coordinated way, respecting the potentialities, virtues and competitions of each one of the actors.
• A major training to the municipal COE and actors, in such a way that they can continue with the actions of risk reduction in the community and school scopes.
• Training to students as from the eight primary courses, onward so that they can constitute in trainers or community brigades.
3.2 The school plans of emergency

3.2.1 Methodology for the building of school plans of emergency

The plans are elaborated during the cascade training process with the following actors: district school principals, Educative Unit Directors, teachers and students.

The building of the plans was not a difficult task because it is well known the planning activity as well as it is practiced as a daily manner in the school activity. Although they are well elaborated and are of teacher knowledge, they should be updated at present. Roles and responsibilities from the different actors are clearly determined.

The only aspect that was detected and should be worked, is the socialization of these SPE because most of the school brigades unknown them.

The School Plans of Emergency are understood to be the transference of approaches and tools to teachers and students so that they can be constituted as an instrument of an active response and generation of a preparative culture that point toward a new concept of integral security. For its construction, the methodology follows the steps mentioned below:
Table 2. Methodology of the School Plan of Emergency

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Compilation and systematization of the primary and secondary information about the community (location, extension, population, activity) and the Educativo Unit (brief historical summary, characteristics, teacher and student population, administrative system, management, telephone number).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>In order to facilitate to participants the building of the SPE, a training workshop was carried out on the conceptual and legal framework, risk management, school plan of emergency and the elaboration of an agenda. This training contributed to build the general and specific objective and the plan elaboration.</td>
</tr>
<tr>
<td>Step 3</td>
<td>As from the knowledge acquired by teachers, students and family parents on the methodology in cascade about the GDR, a School Committee of Emergency was conformed by the following structure: a President, one General Coordinator, Four Coordinators of Brigade and four brigades. Each one of these actors has roles and defined duties.</td>
</tr>
<tr>
<td>Step 4</td>
<td>Additionally to the workshops, the actors involved could identify threats, vulnerabilities, capacities (Human Resources) and risks analysis of the educative units.</td>
</tr>
<tr>
<td>Step 5</td>
<td>In order to orient actions toward identified problems and to be prepared to face disaster situations that may occur, a school plan of action for reducing disaster risks was elaborated by formulating preparative strategies, response and rehabilitation, strategies of response for school brigades of emergency and plans of contingency, taking into account the equipment and the necessary resources.</td>
</tr>
<tr>
<td>Step 6</td>
<td>A plan of evacuation was also elaborated to identify risks as well as vulnerabilities, critical points, security zones, ways of evacuation from the educative unit and the operative plan of evacuation (activation of the alarm system, communication, the performance of the school committee, equipment, instruction, among others).</td>
</tr>
</tbody>
</table>

Source: DIPECHO PROJECT: School preparing us for future disasters.
The SPE should be socialized with the other Project actors like technicians and municipal authorities who also unknown these plans. The coordinator of the Sipe Sipe Municipality, Eng. Julio Cesar Díaz, states that «The municipality, as head of the COE, should know about these SPE. Furthermore, the same COE should count with human resources to conform these plans for their activities. Since the simulacrum forms part of the SPE activities, these should be coordinated with members of the COE and with the municipality, particularly».

Simulacrum of evacuation caused by floods and earthquakes. These are actions to prepare the society and their groups to face an emergency situation in case of earthquakes or floods. This activity emerged from the training process and the implementation of the SPE in each one of the educative units.

The simulacrum coordination was in charge of the school principals and teachers, especially those one addressed to dictate the educative discipline. The responses preparative have three components: equipment and tools of response, signals and human resources trained.

In the first component, the educative units have the necessary material consisting in trolleys, backpack, medicine chests, emblems, among others, elements that guarantee an adequate transfer and attention to possible victims.
The second component foresees the horizontal (floors) and vertical (walls) signs posted in strategic places and of low risk, guaranteeing a rapid evacuation and location of the persons.

Teachers and students recognize the importance of the signs and its role in the school.

Modification and rehabilitation were executed in the Educative Unit Jose Melchor Cuadros, of Vinto, as well as the disposal of escape zones which were formerly closed. These activities show the correct understanding about the importance of evacuation and personal safety as part of the training process.

### 3.2.2 Discoveries and Results

- School plans of emergency (SPE), were elaborated in each one of the educative units, in a participatory manner and on a daily practice of school plan. Each one of them has a school committee of emergency represented by the school principal
- Roles and obligations were clearly identified of each one of the members of the school committee of emergency
- The building of the SPE was first coordinated between teachers and school principals who later coordinate with the students mainly with the school brigade members
- Simulacrums of evacuation were executed in coordination with different actors of the educative community which allowed the evaluation of response capacity of students and teachers, as well as the school plan
- The elaboration of the SPE allowed the Municipality of Vinto to coordinate with other projects and financers
- Changes in school performance like signs, location of garbage and FIRE extinguishers, open doors and the improvement of evacuation routes
3.2.3 Lessons learned

- It is important the participation of COE and the municipal government in the elaboration of school plans of emergency, because it guarantees and makes the plan official.
- When roles are well defined in school plans and there is an empowerment of the actors, the evacuations and responses are developed in a more efficient way and in less time, in cases of emergency.
- When simulacrums of evacuation are carried out, there is a change of attitude in the actors involved.
- The capacities building in a group highly vulnerable like children is, diminish the levels of vulnerability, becoming in human resources trained in the attention of emergency, from a high vulnerability and passive state to a potential actor in the same cycle of the risks management.

3.2.4 Conclusions and recommendations

- Although the SPE elaborated, in a participatory manner, by the assistants participating in training workshops, it was observed that the mechanism of diffusion did not have the expected impact because the other actors not participating in it, unknown them.
- The simulacrums from part of the school plan implementation that develop activities to generate activities of teachers as well as of students with a high level of organization and synchronization.
- Students of Vinto and Sipe Sipe Educativo Units have a better knowledge and preparation which were shown during the evacuation exercises.
• Considering that children and oldest people are the most vulnerable group, the Project achieved that these groups could be one of the principal agents for an adequate attention to emergency
• It is important to carry out Project activities, promoting those carried out by actors in a daily manner, as it was the case of the SPE building
• It is necessary the knowledge and diffusion of school plans of emergency to all the educative community, looking for its articulation with the municipal plan so that it can allow its joint implementation
• Commitment and sensitization of the school committees through a training process
• To count with the municipal government financial support for the execution of the SPE and its inclusion in the COE activities
• A major participation of the COE in the construction and implementation of the SPE process

3.3 The School Brigades

3.3.1 Methodological process

Although the training process began in the early 2008 year, the brigades were formed throughout the year. The period of constitution is not proportional with the learning level because in only two working months, a high level of organization and understanding of activities and responsibilities of each one of the brigades was demonstrated by students and group of teachers.
The group of students was constituted by decision of teachers and school principals who detected, in some of the students, their outstanding skilfulness, virtues, etc. According to the interviewees, the indicators to select the brigadiers were: academia performance, final levels of school formation and leadership.

The methodology used for the building of school brigades is described in the following steps:

**Table 3 Methodology of school brigades**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>The starting point for the formation of brigades was the training workshops executed in the following manner: First: Training was addressed to school principals of different educative units and some teachers Second: School principals and trained teachers, transfer their knowledge to other teachers from their corresponding schools. Third: Teachers trained repeated this process with students This training methodology is called cascade</td>
</tr>
<tr>
<td>Step 2</td>
<td>Once all the actors involved were trained, the selection of students to conform the school brigades was carried out by considering the following characteristics: attitudes, commitment and school performance.</td>
</tr>
<tr>
<td>Step 3</td>
<td>Once the school brigades were established and conducted by school principals and teachers, the roles and duties were determined for each one of the brigades.</td>
</tr>
<tr>
<td>Step 4</td>
<td>The process of preparation and brigades training was executed through: sharing, simulacrum and workshops</td>
</tr>
<tr>
<td>Step 5</td>
<td>Creation of School Networks based on the constituted school brigades.</td>
</tr>
</tbody>
</table>

*Source: DIPECHO PROJECT School preparing us for future disasters*
3.3.2 Discoveries and results

• Capacity generation of assistance to victims in case of emergency
• School leaders were identified for the constitution of school brigades, with high capacity of leadership and sensibility
• School brigades, per school, were constituted and which are conformed by 4 commissions: rescue, security, first aids and communication
• School brigades committed, prepared and with emergency responsibilities well-defined
• School brigades transferred their knowledge to students, neighbours, communities and population, in general
• The participation of Civil Defense in these activities has motivated to students and teachers
• Changing of attitudes in students and teachers were generated.
• Demands from other educative units not participating in the project implementation

3.3.4 Lessons learned

• The participation of the best students and school leaders contributed with the project execution because they demonstrated responsibility and creativity in the developed actions
• Training should be given to all the students, in such a way, that it can allow an involvement at early age so that, in the future, they can be members of the school brigade
• The school brigades should be formed with students as from the eight course grade as it will allow a better response than with children.
• In order to increase the project impact, the school brigade operations should come up from the educative unit environments.

3.3.5 Conclusions and recommendations

• The school brigades are formed by students and teachers trained to manage and respond to disaster situations in the school and community.
• The school brigades are important elements in the school due to the capacity generation developed and because they become in key actors for the educative community.
• The school brigades not only should work, in an organic manner, in the interior of the educative units, but also they should be incorporated in the municipal and departmental COE activities, as an important group of persons trained to respond in case of emergencies.
• The simulacrum constitute an activity in which the performance of the school brigades is put in practice. Nevertheless, the objective is to become them as daily practice at school. In case of emergency, the SPE and the school brigades should be part of the actors group. Therefore, the municipality, as the COE responsible, should allocate economic resources to normalize its practices, activities and promote sensitization campaigns in the population.
• Activities should be coordinated with the municipal government, private institutions, security committees, municipal COE and others.
• It is important the articulation and activities definition between the COE and the district direction office.
• To count with adequate material to train students from 8th grade of primary education to 4th grade of secondary education.
3.4 School competitions

3.4.1 Methodological process

The competition was developed in two stages. In the first one, internal contests were carried out in each educative unit with the participation of students from all the grades. In this stage, 3,000 works were presented.

The second stage was carried out with the participation of the educative units selected. In this stage, 300 works were presented, from which 50 were awarded. Two categories: primary and secondary were determined as well as two modalities: drawing, painting and stories.

Thirty two didactic units were elaborated; 203 teachers worked with the students in the basic contest stages facilitating time and space for the works elaboration. The contest products were the basis for the educative materials.

The competition of drawings and paintings, between the competitors, was of great motivation, who illustrated the risk scenarios of their municipalities through their artistic skillfulness.
The thematic of risks management was frequently linked to the environmental subject. The participants showed the principal problems existing in rural areas like the cutting of trees, fires, garbage, floods, among others.

By the other hand, teachers were most involved in the narrative competition, who collaborated in the text compositions or participated as authors.

3.4.2 Discoveries and results

- A massive participation of teachers and students in the competition of drawing, painting and narration
- Through their painting, drawing and narration, students expressed their learning obtained in the project
- A major acceptance of learning with the campaign of sensitization “door to door”
- Students were awareness and sensitized through stories and other competitions
- At the end of the Project, schools count with educative material base don school contests
- Teachers identified great student talents

3.4.3 Lessons learned

- The narration allowed students and teachers to express their experiences of disasters situation that were previously registered
- The contest generated interest in students and allowed to go into the subject
- The materials produced in the contest constitute important inputs for the building of educative materials so that participants can have a space of expression
• The participation of all the municipal educative units will make available a major sensitization and empowerment of the subject in students and teachers

3.4.4 Conclusions and recommendations

• Participation coordinated between school committees and the COE.
• Promote competitions of this characteristic at communal and neighbourhood level, in close coordination with the municipality and the educative district directions allowing a major sensitization in the population
• It is important to form a local technical team to analyze the materials produced in the contests, with the objective that these ones will later form part of the educative materials in relation to the local educative reality
• To institutionalize the school contests of drawing, painting and narration in the school calendar
• The municipal government and the educative district direction should allocate budget to carry out these activities

3.5 Exchange of experiences between teachers and students

3.5.1 Methodological process

The first visit to Peru was carried out during the period of school vacation, on July 2008. It was conformed by a delegation of school principals, teachers, students, family parents and Bolivian municipal officers.

On that occasion, and for a period of 5 days remaining in Tarapoto, they were trained and worked based on the experience of Practical Action (ITDG) in the department of San Martin.
According to the participant points of view, the level of school organizations in this Peruvian region was very high due to the sustained action works of risk reduction developed by different institutions, among them Practical Action. The level of commitment of the populations where DIPECHO is implementing the Project “We are most prepared when faced with floods and the response when faced any eventuality. This experience enriched the participants, who not only rescue the technical aspect but also the human aspect. This activity was the most important for the participants, generating a high level of commitment with the project.

The second visit was from the group of Peruvian actors to Bolivia. During their staying, they developed training activities and practices of emergency attention. The methodology used by the assistantship was developed in the following manner:

- Visits guided to the Project intervention zones
- Development of learning units at school by using the educative materials produced within the Project framework
- Training process and elaboration of educative materials
- Actions of response to emergencies (simulacrum) were recreated allowing us to know the level of school responses and for receiving works suggestions from the different delegations
- Visits to specialized institutions in order to know the work they carry out on the preparation and responses to emergencies
- Evaluation Meeting between the delegations from another countries
### Table 4 Methodology of assistantship

<table>
<thead>
<tr>
<th>Step 1</th>
<th>The selection of teachers and students for the assistantship was based on four characteristics: commitment, leadership, communication and school performance, in the case of students. The selected group was formed by one district authority, a municipal technician, four teachers and four students.</th>
</tr>
</thead>
</table>
| Step 2 | The first visit took place to the populations of Chincha (Ica), Soritor, Moyobamba, Picota, San Hilarión, Lamas and Tarapoto (San Martín), in Peru. Activities of sensitization, training and simulacrum were executed with the Peruvian group of actors who have, approximately, 10 years of experience. The second visit took place to the populations of Vinto and Sipe Sipe, following the same methodology of the first visit. Both experiences had an effective 5 working days in which the subjects mentioned below were discussed:  
- Visits, guided by the DIPECHO Project team “School preparing us for future disasters”, to the intervention Project zones linked, mainly, to works with the schools.  
- Actions of response to emergencies were recreated, like simulacrum, in order to know the level of response from the educative community. Learning units were also worked as well as their applications in the classroom with educative materials built, participatively, between professors and students.  
- Visits to specialized institutions in order to know the work they carry out on the preparation and responses to emergencies. |
| Step 3 | Finally, an evaluation meeting was carried out between the assistants, local authorities and the project team. |

Source: DIPECHO PROJECT School preparing us for future disasters
3.5.2 Discoveries and Results

- The assistantships permit to share the elaboration action process of risk reduction according to the experience and methodology applied in each working zone
- Organization capacity to face an event, commitment preventive culture developed by municipal and educative authorities
- The in situ training permitted the reflection of the phrase: «I would have acted different if I would have known»
- The assistantship promotes a major sensitization about the subject, as from the experience in disaster zones
- It was very profitable to determine points of meeting and methodological analysis by identified subject, among the working Project lines

3.5.3 Lessons learned

- The assistantships are constituted as a space of sharing experiences and learning between the participants, allowing a major assessment and empowerment of the actions executed
- Knowledge and diffusion of experiences between countries permit a major empowerment between the participants, contributing to its incorporation in educative processes
- To learn the work and experiences from others, permitted that the learning were participative and shared in a knowing-learning logic
- The assistantship sensitized and motivated to actors, mainly to those living in zones of high risk
  It permits the promotion and articulation of networks and a major impact for the replicas that may be generated
• There is a necessity to articulate the experiences in order to socialize information and materials

3.5.4 Conclusions and recommendations

• The creation and strengthening of school and teachers networks which permit a permanent exchange of information
• Establishment of experience exchanges between the different municipal environmental, taking into account a certain thematic line which allows the evaluation of the methodological process of the action

3.6 The school as the coordinating axis with the community

3.6.1 Methodological process

As from the authorities and municipal employee perspectives, the school can be a coordinator between the society and the local authorities due to the availability of students and teachers working on the thematic of prevention. In that sense, it was proposed to carry out joint activities of massive sensitization twice a year, organization of environmental fairs and population training through school brigades, all these actions and others in coordination with the municipal COE: In this mission, the
Educative district directions should perform a leading role of coordination at school and municipal level.

In the capitalization of experiences, it was also identified that the municipal employees recognize the capacities already established in the schools, which are the human resource potential for the COE, in case of disasters.

Lastly, recognition to risks management for the municipal planning was also achieved. For this purpose, the Sipe Sipe government promised a major allocation of economic resources.

Since the district school principals are the Head of the educative municipal sector, they form part of the COE. For this reason, the role that they now have with the group of teachers and well-trained students not only is a strengthened actor in human resources and materials but also they can fulfil the roles of sensitizers, trainers, motivators and executors.

Due to the great number of trained persons who are important at the moment of emergency situations, it should be given to the district school directions a major space of coordination and work, as well as to the Police and Army Departments.

“School and emergency centres are the icon of all the communities; through them, the culture of prevention should be promoted and coordinated”
From the school principal perspectives, there is a conviction that the school should be the coordinator because of the noble role they perform in the society, resides being a key instrument of sensitization in families and principal neighbourhoods.

Schools also have an operative arm and a decision-making which are the school committees and the participation of the parents.

School Principals and Teachers asked to the Vinto District School Direction of Vinto to allocate in the 2009 AOP a budgeted item for the campaigns of sensitization and competitions, principally. Financing for other aspects related to training and practices, which may continue in the Educative Units, should be covered by the municipal government.

From the student perspectives, the official Project work, in relation to training and sensitization, was carried out in the educative units and through the activity door to door. The brigadiers mentioned that this campaign was of great motivation because it allowed them to talk with their neighbours, friends, families, etc., from whom they found interest to know more about the subject. For this reason, the capitalization suggests that the work could be executed by the educative area and could take roots in other actors within the scopes planned in order to generate major impact and sustainability.
3.6.2 Discoveries and results

- Acceptance of students, teachers and population in its whole to develop actions of preparation when faced with disasters
- The school committees and the school family parents participated actively in project activities
- Allocation of a budget for the preparation of disasters with specific activities in schools and OTB

3.6.3 Lessons learned

- The participation of student articulates the family and the community as actors in the process of risk reduction and preparation when faced with disasters
- The motivation of the educative unit actors is a potential instrument to diffuse the project, its conceptual components and tools

3.6.4 Conclusions and recommendations

- The family parents and the Educative Units commitment in future replicas in Vinto
- Annual updating of the School Plan of Emergency with the participation of the educative community, and the school committee of emergency, principally
- Budget and technical support from the municipal governments.
- To change the citizen attitudes through training, sensitization and commitment
- To count with a human group (teachers and students) who can perform training and sensitization courses addressed to the population in coordination with the COE
CHAPTER 4
Annexes and appendixes

4.1 Map of the Project location
4.2 Bibliographical references

1) School Plan of Emergency, Educative Units from the Municipalities of Vinto and Sipe Sipe, September 2008

2) Base Line Survey, situation of Vinto and Sipe Sipe Educative Units

3) Training Workshop on approaches and tools addressed to Educative teachers and leaders, Cochabamba – Bolivia

4) Preparative and responses to disasters starting from the School and the Community in the department of Cochabamba – Bolivia

5) Recopilation of the Project base line, Cochabamba – Bolivia, 2008

6) Diagnosis of Risks in the Municipality of Vinto, August 2008

7) Diagnosis of Risks in the Municipality of Sipe Sipe, October 2008